ATXI Exhibit 4.0 (RH)

ILLINOIS COMMERCE COMMISSION

DOCKET No. 12-0598

REBUTTAL TESTIMONY ON REHEARING

OF

DENNIS D. KRAMER

Submitted On Behalf

Of

AMEREN TRANSMISSION COMPANY OF ILLINOIS

December 2, 2013

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I. INTRODUCTION

Q. Please state your name, business address and present position.

A. My name is Dennis D. Kramer, and my business address is One Ameren Plaza 1901 Chouteau Avenue, St. Louis, Missouri 63103. I am currently the Senior Director of Transmission Policy and Planning at Ameren Services Company (Ameren Services).

Q. Are you the same Dennis D. Kramer who sponsored direct and rebuttal testimony in the initial phase of this proceeding, and direct testimony on rehearing?

A. Yes, I am.

II. PURPOSE AND SCOPE

Q. What is the purpose of your rebuttal testimony on rehearing?

A. My testimony responds to the direct testimony on rehearing of Illinois Commerce Commission Staff witness Mr. Greg Rockrohr regarding Staff's proposed Kincaid connection and proposed substation locations.

Q. Are you sponsoring any exhibits in support of your testimony?

A. Yes, I sponsor the following:

- ATXI Exhibit 4.1 (RH) – Power flow analysis of Pana - ATXI's Mt. Zion Substation 345 kV line.
- ATXI Exhibit 4.2 (RH) – Power flow analysis of Pana - Staff's Mt. Zion Substation 345 kV line.
- ATXI Exhibit 4.3 (RH) – Power flow analysis of Pana - Staff's Moweaqua Substation 345 kV line (using existing 138 kV line to Decatur area).
- ATXI Exhibit 4.4 (RH) – Power flow analysis of Pana - Staff's Moweaqua Substation 345 kV line (using existing 138 kV line to Decatur area and a new 138 kV line from Moweaqua North substation to PPG).

III. RESPONSE TO STAFF

Q. What is Mr. Rockrohr's rehearing direct position on the question of how to connect Pawnee and Mt. Zion?

A. He believes use of an existing 345 kV line from Pawnee to Kincaid and constructing a new line from Kincaid to Mt. Zion is the "most rational and cost effective" means to connect Pawnee to Mt. Zion.

Q. What does he base his conclusion on?

A. That Staff's Kincaid route would result in a "significantly shorter" route than ATXI's proposed routes from Pawnee to Pana to Mt. Zion and efficiently utilize existing transmission facilities. [Data Responses ATXI-ICC 3.06, 3.07]. In particular he contends that his Kincaid connection will reduce the Project's construction costs, maintenance costs, land acquisition costs, and potential impacts on landowners and the public because Staff's proposed route is 25 miles shorter. [Data Responses ATXI-ICC 3.02, 3.06, 3.07.]

Q. Does Mr. Rockrohr address the consequences for the regional electric system of a Kincaid connection?

A. No. In fact he admits to not performing any power flow or system impact studies to determine the effects and consequences on the system that will occur if the Kincaid connection is implemented. Staff acknowledges in their October 16, 2013 route filing that they have not contacted other entities which might have knowledge regarding the costs, feasibility, or other impact of Staff's proposed route.

Q. Do you agree that the Kincaid connection would reduce the Project's cost to the Ameren Illinois area customers?

A. No. While a Kincaid line to the Mt. Zion substation locations proposed by Staff in their October 16, 2013 route filing and in Mr. Rockrohr's rehearing testimony may be shorter than the Pana connection's Pawnee to Pana to Mt. Zion line, applying the unique MVP cost sharing methodology results in the Pana connection having a lower cost to Ameren Illinois area customers. The savings from Staff's estimated 25 fewer miles of transmission line are more than offset by other costs related to the Kincaid connection and the cost born by Ameren Illinois area customers for relocating and rebuilding the Pana substation that would no longer be cost shared if the Kincaid connection is implemented

As ATXI Exhibit 1.6 (RH) to my rehearing testimony clearly shows, due to the unique MVP project cost sharing methodology, Staff's proposed Kincaid connection will actually result in higher costs for the Ameren Illinois area customers, by about $25 million, compared to ATXI's Pana connection. Therefore the Pana connection is clearly a more cost effective option than the Kincaid connection.

Q. What other costs need to be considered in determining whether a Kincaid connection is more cost effective?

A. No. Staff seems focused almost exclusively upon transmission line length, line construction cost and land impacts, but fails to account for additional cost items that will be required as part of the proposed Kincaid connection. Some of the cost items that Staff omits are: necessary expansion and alteration of the Kincaid 345 kV substation (described in my direct testimony at pages 14-15 and 19-20), and potential additional needed upgrades on the Ameren, MISO, ComEd and PJM system that are caused by the Kincaid connection's impact on the rest of the transmission grid. I have included a rough estimate of just the Kincaid substation costs in my direct testimony on rehearing (ATXI Exhibit 1.6 (RH)).

Q. Are there other costs Staff does not address?

A. Yes. As discussed in my rehearing direct testimony, the Kincaid connection cannot be constructed and placed in service in 2016. Therefore additional system reinforcements would be needed to address the Decatur area reliability issues between 2016 and 2018 due to the failure of the Kincaid connection to address these reliability issues. These additional system reinforcements will add to the cost of the Kincaid connection and are not subject to MVP cost sharing. In addition, as described in ATXI witness Jeffrey Hackman's rehearing direct testimony, the cost of relocating the existing Pana substation and rebuilding it at a new site due to mine subsidence must be incurred. But if a 345 kV line to Pana is not included in the Project, these costs would not be subject to MVP cost sharing. (ATXI Exhibit 1.6 (RH)). I believe this point is important for the Commission to consider because these costs of a Kincaid connection are significant, but are not cost shared and would be born entirely by Ameren Illinois area customers.

Q. Are there other benefits from a Pana connection versus a Kincaid connection?

A. Yes. Staff doesn't address reliability benefits provided by the Pana connection that would be lost with a Kincaid connection, such as improved Coffeen power plant stability, elimination of the potential overloading of the planned Mt. Zion area substation 345/138 transformer under certain system conditions, ability to address the Decatur area reliability issues in the needed 2016 timeframe, and additional 345 kV supplies to Pana.

Q. Do you agree that constructing ATXI's new 345 kV transmission line from Kincaid to supply the Decatur area, instead of from Pana, is the most rational, cost-effective solution?

A. No. Implementing the Kincaid connection will result in the Ameren Illinois area customers paying more (as explained in ATXI Exhibit 1.6 (RH), the additional cost for actions needed to address the Decatur area reliability issues from 2016 until 2018), for fewer benefits (increased potential for system congestion under certain system conditions, no improvement in Coffeen power plant stability, elimination of the potential overloading of the planned Mt. Zion area substation 345/138 transformer under certain system conditions), that take longer to achieve (probably not in service until 2018). This is not the most rational and cost effective solution.

Q. Does Mr. Rockrohr propose substation sites for the Mt. Zion area?

A. Yes. He proposes three alternatives: one (identified by Staff as "Sub Site Option 2") is a location originally proposed by the Village of Mt. Zion about three miles south of ATXI's Mt. Zion substation location, the second is another site very close by (identified by Staff as "Sub Site Option 1"), and the third site is near AIC's Moweaqua tap about 12 miles southwest of ATXI's Mt. Zion substation location.

Q. Has ATXI performed an analysis to evaluate Mr. Rockrohr's substation Site Options 1 and 2 described in Mr. Rockrohr's rehearing direct testimony?

A. Yes. ATXI performed a preliminary power flow analysis for a limited set of system contingencies and conditions assuming a 345 kV line was constructed from the Pana substation to a Mt. Zion area substation at either the ATXI proposed site or Staff's proposed Site Options 1 and 2. Staff's proposed sites are very close to each other and therefore a single site was used for the analysis.

ATXI Exhibit 4.1 (RH) reflects the results of the analysis for a Pana – Mt. Zion 345 kV line connected to a Mt. Zion substation located at ATXI's proposed substation site. The analysis was performed assuming two 138 kV connections from the Mt. Zion substation to the Decatur area.

The analysis indicates that this combination of transmission lines and substation location results in voltages of 95.0%, which equals the Ameren Transmission Planning Criteria 95% threshold (transmission system voltage below 95% of nominal that has been established as an indication of a possible deficiency—see ATXI Ex. 2.0, p. 8; 2.3), from 2016 until 2018.

ATXI Exhibit 4.2 (RH) reflects the results of the analysis for a Pana – Mt. Zion 345 kV line connected to a Mt. Zion substation located at Staff's proposed substation site. The analysis was performed assuming two 138 kV connections from the Mt. Zion substation to the Decatur area.

The analysis indicates that this combination of transmission lines and substation location results in voltages of 94.3%, which is below the Ameren Transmission Planning Criteria 95% threshold, from 2016 until 2018.

ATXI's practice is that post contingency voltages 95% of nominal or higher are

considered adequate. If post contingency voltages are less than 95% of nominal, then the level of concern for possible voltage collapse and loss of load increases as the percentage of nominal voltage decreases. At between 89% and 86% of nominal, there is significant risk of voltage collapse and loss of load. At 85% of nominal, a voltage collapse is essentially assured.

Based upon the preliminary analysis performed for a Pana – Mt. Zion 345 kV line connected to a Mt. Zion substation located at Staff's proposed substation site, ATXI believes the indicated 94.3% of nominal voltage would not pose an excessive additional risk of voltage collapse compared to the same 345 kV line with the Mt. Zion substation located at ATXI's proposed site.

Q. What analysis has ATXI performed to evaluate Mr. Rockrohr's third alternative substation site described in his rehearing direct testimony?

A. Mr. Rockrohr's third alternative substation site is about 11 miles from the site proposed in Staff's October 16, 2013 route filing and over 12 miles from the Decatur and Mt. Zion areas. For ease of identification, ATXI has named Mr. Rockrohr's third alternative substation site in Macon County east of Rosedale Road near ATXI's Moweaqua tap as the "Moweaqua substation."

ATXI performed a preliminary power flow analysis for a limited set of system contingencies and conditions assuming a 345 kV line was constructed from the Pana substation to the Moweaqua substation and assuming a single 138 kV connection to the Decatur area using AIC's existing 138 kV system.

ATXI Exhibit 4.3 (RH) reflects the results of the analysis for a Pana – Moweaqua substation 345 kV line connected to the Moweaqua substation at Mr. Rockrohr's suggested site.

The analysis was performed assuming a single 138 kV connection to the Decatur area using AIC's existing 138 kV system.

The analysis indicates that this combination of transmission lines and substation location results in voltages of 90.9%, which is well below the Ameren Transmission Planning Criteria 95% threshold from 2016 until 2018. A voltage of 90.9% of nominal would be a concern regarding possible voltage collapse and loss of load.

ATXI then performed a preliminary power flow analysis for a limited set of system contingencies and conditions assuming a 345 kV line was constructed from the Pana substation to the Moweaqua substation, using AIC's existing 138 kV system connection to the Decatur area and a second 138 kV connection to the Decatur area from the Moweaqua substation as described by Mr. Rockrohr in his rehearing testimony as a potential future option. The second 138 kV connection would be achieved by rebuilding and extending the existing AIC 138 kV line that terminates north of Moweaqua, near Hwy 51 to the Decatur area.

ATXI Exhibit 4.4 (RH) reflects the results of the analysis for a Pana—Moweaqua substation 345 kV line connected to the Moweaqua substation at Mr. Rockrohr's suggested site. The analysis was performed assuming two 138 kV connections to the Decatur area.

The analysis indicates that this combination of transmission lines and substation location results in voltages of 92.9%, which is below the Ameren Transmission Planning Criteria 95% threshold from 2016 until 2018.

Mr. Rockrohr mentions in his rehearing testimony that he believes the Moweaqua substation site has an advantage over other sites because it will not require a CPCN in order to adequately address the Decatur area reliability issues. As the analysis clearly shows, this advantage does not exist because Mr. Rockrohr's proposed Moweaqua substation only provides

post contingency voltages of 92.9% of nominal between 2016 and 2018 with one existing and a new 138 kV connection to the Decatur area. Therefore a CPCN would be needed for at least one new 138 kV transmission to the Decatur area if the Moweaqua substation was implemented.

Q. Does the preliminary analysis of Staff's proposed substation Site Options 1 and 2 and Mr. Rockrohr's proposed Moweaqua substation site change your opinion provided in direct testimony?

A. No. I continue to believe ATXI's Mt. Zion substation location is preferable because it is closer to the load as demonstrated by its higher level of voltage support for the set of system contingencies and conditions that were analyzed than a substation located at any of Staff's proposed sites.

Q. In Mr. Rockrohr's rehearing testimony he indicates a belief that a Moweaqua 345/138 kV substation could reinforce AIC's 138 kV system in the Pana area. Do you agree with Mr. Rockrohr's assertion?

A. The Pana connection will provide two new 345 kV supplies directly at the Pana substation (Pawnee – Pana line and Pana – Mt. Zion line). While locating a new 345/138 kV substation at Moweaqua and connecting it to the existing Pana-Decatur Route 51 138 kV line will provide some marginal level of additional support to Pana, it is much less than the support the Pana Connection will provide and does not justify construction of the Moweaqua substation.

Q. In Mr. Rockrohr's rehearing testimony he refers to ATXI Exhibit 11.0 and seems to indicate that this exhibit provides evidence that the substation locations he identifies in his rehearing testimony would provide adequate voltage support to the Decatur area in order

to address the Decatur area reliability issues. Do you agree with Mr. Rockrohr that ATXI Exhibit 11.0 is applicable to the Kincaid connection?

A. No. The analysis that Mr. Rockrohr is referencing from ATXI Exhibit 11.0 was a limited analysis that was previously performed by ATXI to evaluate a potential Mt. Zion substation location that Mr. Rockrohr proposed in his direct testimony located far south of the Decatur area and along a hypothetical 345 kV line that would connect the Pana substation to the Kansas substation. Locating the Mt. Zion substation at the location proposed by Mr. Rockrohr in his direct testimony on rehearing would result in 138 kV connections to the Decatur area being approximately 30 miles in length.

In his rehearing testimony Mr. Rockrohr is misapplying the previous analysis that was performed. This previous analysis provided results for a substation location much different than those proposed by Staff in their October 16, 2013 route filing or by Mr. Rockrohr in his rehearing testimony and therefore the results are not applicable.

IV. CONCLUSION

Q. Does this conclude your rebuttal testimony on rehearing?

A. Yes, it does.